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Standardization

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January

The Cost of the Non-Standard Product
(Frontispiece, facing page 1)
ASA Annual Meeting
(Pages 1-7)

1942

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Am. Gas Assn
Am. Home Economics Assn
Am. Institute of Bolt, Nut & Rivet Mfrs
Am. Institute of Elec Engineers
Am. Institute of Steel Construction
Am. Iron & Steel Institute
Am. Petroleum Institute
Am. Soc of Civil Engineers
Am. Soc of Mechanical Engineers
Am. Soc for Testing Materials
Am. Soc of Tool Engineers
Am. Transit Assn
Am. Water Works Assn
Assn of American Railroads
Assn of Gas Appliance and Equipment Mfrs
Automobile Mfrs Assn
Cast Iron Pipe Research Assn
Copper & Brass Research Assn
Electric Light and Power Group: Assn of Edison Illuminating Companies
Edison Electric Institute
Federal Housing Administration
Federal Works Agency
Fire Protection Group: Associated Factory Mutual Fire Insurance Companies
Nat Bd of Fire Underwriters
Nat Fire Protection Assn
Underwriters' Laboratories, Inc

Institute of Radio Engineers
Mfrs Standardization Soc of the Valve and Fittings Industry
Nat Assn of Mutual Casualty Companies
Nat Conservation Bureau
Nat Electrical Mfrs Assn
Nat Machine Tool Builders' Assn
Nat Safety Council
Outdoor Advertising Assn of America, Inc
Photographic Mfrs Group: Agfa Ansco Division of General Aniline & Film Corporation
Eastman Kodak Company
Soc of Automotive Engineers
Telephone Group: Bell Telephone System
U.S. Department of Agriculture
U.S. Department of Commerce
U.S. Department of the Interior
U.S. Department of Labor
U.S. Govt Printing Office
U.S. Navy Department
U.S. Treasury Department
U.S. War Department

Am. Council of Commercial Laboratories
Am. Gear Mfrs Assn
Am. Hospital Assn
Am. Hotel Assn of U.S. & Canada
Am. Institute of Architects
Am. Soc of Heating & Ventilating Engineers
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Am. Trucking Assns, Inc
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Heat Exchange Institute
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Industrial Safety Equipment Assn
Insulation Board Institute
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Nat Elevator Manufacturing Industry, Inc
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Soc of Motion Picture Engineers
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Associate Members

Am. Assn of Textile Chemists and Colorists
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Company Members—Some 2,000 industrial concerns hold membership either directly or by group arrangement through their respective trade associations.

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RUTH E. MASON, Editor

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January, 1942

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Office at New York, N. Y., under the Act of March 3, 1879.

The Cost of the Non-Standard Product

The excessive cost of non-standard products is not generally realized. Hence, such products are often allowed to become partially parasitic upon the standard product.

This is well illustrated by an experience of his own related by A. W. Shaw, who had been head of the Conservation Division of the War Industries Board in the first World War.

At one time, in his furniture factory, special orders were cultivated to such a point that the filling of these orders interfered seriously with the manufacture of the standard product. A separate factory was finally erected for the special work. This led to more accurate cost-accounting, which proved that the company was losing money on special orders. When the attempt was made to raise the price of the special product to the point where the special factory would pay its own way, it was found that this could not be done, because the customer then preferred the standard product. As a result the business in "specials" was eliminated.

Concentration on standard products is of extreme importance in war-time economy.

What Our New "Victory" Economy Means¹

by Lessing J. Rosenwald

Chief, OPM Bureau of Industrial Conservation

YOU understand as well as I do what position the country is in now. We are at war. I shall not attempt to emphasize the grimness of war, not because I am immune to it but because I would prefer to have you assume that I am aware of it, and to talk to you briefly about the economic aspects of it as I see them.

We have changed from what one might call a defense economy, to what might be called a victory economy. That change, in terms of economics, is so vast that I question whether any of you, (I am sure I do not), comprehend the full scope of its meaning. I think it is almost impossible for the average citizen to visualize, for example, what it means in materiel for war purposes alone, to say nothing of its effect on those materials which we as private individuals are interested in. As these materials are needed for war purposes, we must and will have alterations in our civilian life.

All of us have seen or heard of the change that has taken place in England, but it has been hard for us to believe that such an economy as exists in England could possibly come to this country. I do not know that it will in all respects, but unquestionably we will in many ways approach the English economy. As a result, many of those things which we have taken as a matter of course will, in view of the necessity, have to be considered as out of our ordinary economy. We do not know what all of these changes may be, but I think you will agree with me that whatever they are we must face them squarely, resolutely, and intelligently.

What Must Be Done

Let me just give you a few of the things we must anticipate:

First of all, we must vastly increase the development of our natural resources, wherever such an increase is humanly possible. Such an

Speed is vital, ASA Annual Meeting is told—in enlarged production; salvage and substitution of materials; emergency specifications; simplified practice; and in preparation of emergency standards

increase is possible in many things, particularly in certain minerals.

Second, we will have to increase our manufacturing facilities. That will mean the building of many more plants, and additions to plants now in existence. It means the transfer of many manufacturing facilities from what were considered civilian requirements, and adapting them to war use. I think some of the things that we will be doing will be almost unbelievable. It was suggested the other day that probably those manufacturers who had been primarily interested in making containers for lipsticks would be using their equipment for making small arms ammunition. That is just one of the things that might come to pass.

We must squeeze out of production and consumption all of the inherent waste for which this country has been duly famous—or infamous. I do not know which.

We must salvage all of those materials which have served their purpose once but which can be re-used, and get them back into manufacture at the earliest possible moment.

We must make what we *have* do for what we *need*. We as civilians must forego certain luxuries and conveniences that will contribute to

For Annual Meeting Reports see pages 4-10.

¹Address delivered by Mr. Rosenwald at the ASA Annual Meeting December 10, 1941.

the essentials of the armed forces, and be perfectly willing to live under reduced luxuries, even necessities sometimes, and do it cheerfully.

The last point is, I believe, one of the most important. I think we must within ourselves resolve to play fairly and squarely with each other in order that both civilian economy and morale may be kept at the highest possible pitch. You know and I know that under ordinary circumstances we oftentimes feel we can allow ourselves practices which under today's conditions are not permissible. For example, hoarding has been one evil. Today, I should say hoarding of any essential material is not playing fairly and squarely with each other or doing our duty to the armed forces of this country.

Can Be Proud of OPM

I should like to digress a moment and say a word about OPM. I think that you as individuals ought to feel extremely proud that men of the calibre now in OPM are devoting their energies to a very serious problem and doing it in a most wonderful manner. I doubt if you could find such an aggregation of able, willing men in any country in the world as is today housed under the Office of Production Management. You have men who have achieved great places in industry, who are accustomed to having their own way, working side by side in a common cause, willing to put aside their own personal views and unify their efforts toward one end. They are putting in hours, literally, that you could not hire them to work, and the accomplishments which they have so far achieved are beyond anything that one could reasonably expect.

I will now tell you a little about the Bureau of Industrial Conservation.

The purpose of this Bureau is primarily to eliminate waste in its many and varied forms, and to aid in making the "critical" materials serve their best uses and stretch out as far as possible; as well as to endeavor to find adequate substitutions for them when we can. In order to accomplish these purposes we have set up our Bureau in four main branches.

Four Branches in Conservation Bureau

The first branch is known as the Specifications Branch. It has to do with the making of emergency specifications for all government purposes. Men in this branch have places on all emergency specifications boards throughout the various departments of the Government and are constantly working with them to adjust their ordinary peacetime specifications to fit in with the emergency. This branch also has the task of going over all Government building projects, such as the new building for the War Department, and giving

them what we call a "strip tease." In other words we rob those buildings of all non-essentials.

The second group we call the Conservation and Substitution Branch. It concerns itself with the substitution of one material that is less critical for another more critical material. The most important problem facing this particular branch at the present time is that of shell cases. As you know, shell cases are made of brass. They take an enormous percentage of our copper, which is one of the most critical materials we have. We have been working with various groups to try to find an adequate substitute. It now seems likely that within a short time we will be able to manufacture shell cases out of steel rather than out of brass in the 20 mm size and up. If we do, we will succeed in eliminating much of the brass and hence the copper that goes into shell cases now. We are also working on shell cases below the 20 mm size but the former is nearer solution than the latter.

Another item on the program of this branch is elimination. For example, it was suggested that during the emergency we could probably dispense with the iron piping that runs along the top of the chain link fences which are used so extensively. So we eliminated the pipe and substituted a steel wire running between the posts to replace it. In this way it is estimated we saved 13,200 miles of pipe. These are only two illustrations of the sort of thing that goes on in this branch of our Bureau constantly.

Third Branch Covers Simplification

Our third branch is simplification. We believe that in industry today manufacture can and must be done quickly to aid in the defense effort. Simplification, or simplified practice, is one means of bringing this about. When I speak of simplified practice I mean reduction in the variety of sizes, shapes, colors, etc., that are offered to the public, and concentration on those sizes which most nearly fill the complete demand. In many cases 20 per cent of the sizes, we will say, will take care of 80 per cent or more of the demand.

The fourth branch is salvage; that is, reclaiming those articles which the Government needs, such as paper, rubber, steel scrap, non-ferrous scrap, cotton and woolen rags. Through salvage we try to get these back for remanufacture. We need every one of them badly in this "victory" economy. They are divided up into household scrap, industrial scrap, and government scrap. The first two are under way; but the government scrap has not yet shown any immediate saving. That is the next most important thing on our agenda.

Those are the four branches in our Bureau.

We have in addition what is known as the Engineering Defense Board, which acts in a supervisory capacity. The Engineering Defense Board is made up of representatives of six of the principal engineering societies. This board is aiding us in the solution of many technical problems, and is also suggesting to us certain activities which it believes to be in the interest of the victory effort.

Use Services of ASA and NBS

We also use the services of other technical organizations such as the American Standards Association and the National Bureau of Standards to aid us in our work.

Now a word about simplification and standardization. In simplification, as I have said before, we attempt to reduce variety—for instance, variety of sizes. We hope thereby to accomplish two things: first, we hope to increase production; and second, we hope to eliminate inventory tied up in the slower-moving sizes. Such procedure involves no mechanical changes.

When it comes to standardization, however, we have to be more careful; we have to weigh all the features involved. Will it, for instance, mean changes in machinery? Will it mean reduction in production? Will it reduce critical materials? Don't mistake me, I think standardization is often very desirable, but I say that sometimes standardization is not possible today without certain losses which we can ill afford.

I think I realize the importance of standards and standardization. All of our manufacturing efforts depend on proper standards. We could not get along without them. We need minute and detailed standard measurements and specifications because they are vital. We will continue to need standards to fit in with our victory economy, but in setting up new standards we must weigh them carefully before putting them into operation. For example:—most of the cans for putting up fruits and vegetables are of a standard size. For argument let's call it 300 mm. There is one canner who does not buy his cans but manufactures them himself. That manufacturer has adopted a diameter of 298 mm. If we were to say to him that 300 mm was to be the standard diameter, it would mean the loss of his manufacturing facilities until he could revamp his machinery as well as the refitting of his filling equipment. It is not so easy to say that we will adopt a 300 mm diameter and forego the capacity even for a short period of this one large manufacturer by so doing. The figures I have given you are not correct but they represent something like the condition.

I should like to say a word about a note which was published recently in regard to the relationship between the Consumer Division of OPA



Shelburne Studios

Lessing J. Rosenwald

and our Bureau. It often happens in government that you may find some duplication in the work of two different agencies. We found that this was to some extent the case with the Consumers Division and the Bureau of Industrial Conservation. Through conversations with Dr. Brady of the Consumer Division, however, we came to an understanding. In order to make that understanding exact we put it down on paper as an inter-office memorandum with the distinct understanding that it was not to be published. It was simply a mistake that that memorandum was published, since it affected only our two bureaus and their cooperative relations. A similar understanding has also been reached between the American Standards Association, the National Bureau of Standards, the Consumers' Division, and our Bureau. It was along exactly the same lines, and was intended to accomplish the same purpose. I think it also is working well. In neither case was anyone other than the signatories affected and then only in relation to each other as covered by the understanding.

Speed Is Now Essential

The ASA has always been noted for its integrity and for the fine quality of its work. I think

you must of necessity continue that same high standard. I think, however, that the ASA must be alive to the changed conditions and change with them. Speed is now a component part of your work. We cannot afford today to spend the time in reaching conclusions that even last week we could afford to spend. Speed is now one of the essentials. I understand quite well that this work is done in your emergency committees by volunteer workers, but even so these are emergency committees and their work must be speeded up if you are to make the most of what you are attempting to do. I have tried to reduce the need

for speed to a mathematical formula in this wise: A standard which is needed *now* loses value as time passes at least in proportion to the time squared, if not the time cubed.

What I am trying to tell you is that when a standard is needed, it is needed quickly and we cannot indulge ourselves in the luxury of developing standards over the length of time we formerly felt was actually necessary. We have to have them more quickly. I feel sure you can and will increase the tempo of your valuable contributions.

ASA Names Officers for 1942

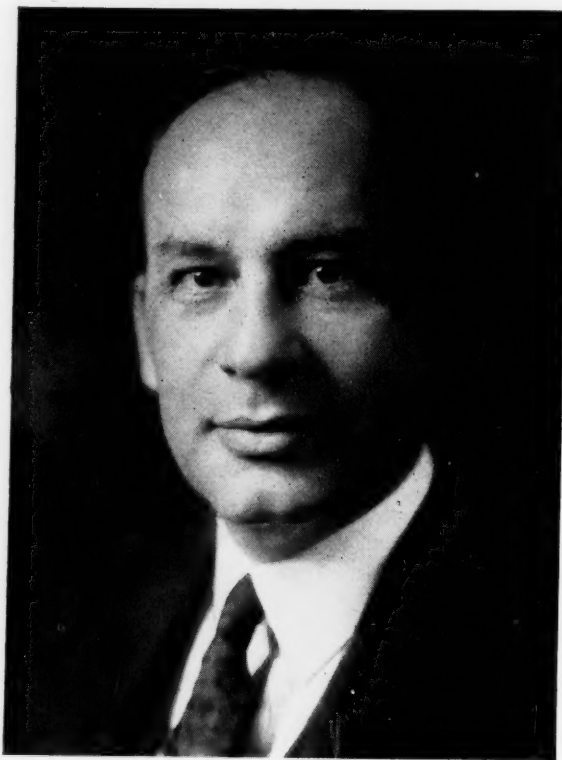
Zimmerman Is Re-elected President Osborne Heads Standards Council

R. E. ZIMMERMAN was re-elected president of the American Standards Association at the Annual Luncheon Meeting December 10 at the Hotel Astor, New York. Mr. Zimmerman, who is vice-president of the United States Steel Corporation has been active in the work of the Association since 1937, when he was nominated for membership on the Board of Directors by the American Iron and Steel Institute.

Henry B. Bryans was elected vice-president of the Association. Mr. Bryans is executive vice-president and director of the Philadelphia Electric Company. He is a new member of the Board of Directors of the American Standards Association, nominated by the Edison Electric Institute and the Association of Edison Illuminating Companies succeeding John C. Parker.

Dr. H. S. Osborne, engineer in charge of operating results of the American Telephone and Telegraph Company, was elected chairman of the Standards Council to succeed Dr. R. P. Anderson of the American Petroleum Institute. Dr. Osborne has served as vice-chairman of the Council since 1940, and has been a member of the Council since 1923, representing the American Institute of Electrical Engineers.

A. W. Whitney of the National Conservation Bureau was elected vice-chairman of the Standards Council to succeed Dr. Osborne. Mr. Whitney has been associated with the American Standards Association almost since its organization. He served as chairman from 1922 to 1924. He represented this country at the first Pan-American Standardization Conference in Peru in 1924.



R. E. Zimmerman
Re-elected ASA President

Emergency Standards and Latin-American Cooperation—

High-Spots of ASA Work for 1941

THE membership of the American Standards Association is presenting a broader and broader cross section of industry. We now have 77 national organizations holding membership—an impressive number. It is interesting to note that the organization started 23 years ago with a membership of five engineering societies—later on broadened to include some trade associations in the heavy industries—and that much of the early work was done on interchangeability of parts, and specifications for materials. In the years since then many new groups have become interested in standardization work. These have brought to the American Standards Association tasks in the mining field, in civil engineering and building, and in many other fields. As we look through the projects we are working on today, we find traffic standards, safety standards, standards for the prevention of industrial diseases, for photography and cinematography, building materials, and the like.

It is always a pleasure to welcome new groups into the American Standards Association. This past year we have had five new affiliations:

- The American Hotel Association
- The American Institute of Steel Construction
- The Association of Gas Appliance and Equipment Manufacturers
- The Metal Lath Manufacturers Association
- The National Lime Association

These groups are already active in American Standards Association work, particularly the Gas Appliance people and the Institute of Steel Construction. I should like to say, however, that it will be a pleasure to have them with us on administrative committees as well as having their cooperation in the technical work.

Consumer Work and Certification

Recently we have extended our efforts from the work with which we started twenty years ago, in undertaking the development of a whole series of standards for consumer goods. We have been

Annual Report

by R. E. Zimmerman¹

President, American Standards Association

The Annual Meeting of the American Standards Association, at which Mr. Zimmerman presented this report, was held December 10 at the Hotel Astor, New York. Some 300 representatives of trade, technical, and governmental groups were present. Following the president's report and the report of the Standards Council (page 7), Les-ling J. Rosenwald, chief of the new Bureau of Industrial Conservation of the OPM, addressed the meeting. His address is given in full on pages 1-4.

getting deeper and deeper into this work in the last twelve months. We already have a number of completed jobs.

Related to this work, a proposal has come to the Association that in addition to its standardization work on consumer goods it develop a program on certification of products as conforming to standards. The suggestion is that the Institute of Standards which was organized for the certification of consumer products should be merged with the American Standards Association. We have had a very important decision to make as to whether this move ought to be taken. Last March the Board of Directors declared itself "not unsympathetic with the idea of lending every aid to implementing the certification of consumer goods

¹ Vice-President, United States Steel Corporation.



Henry B. Bryans
New ASA Vice-President

through cooperation of manufacturers, distributors, publishers, and consumers." The Board also authorized a study of the subject. This study, however, was deferred pending the outcome of a similar study being made by a group of ranking manufacturing and advertising executives. This group was of the opinion that on account of the preoccupation of the country with the defense effort, the time was not opportune to attempt an over-all solution of the problem of the use of standards in marketing, but stated "your committee commends the procedure followed in such cases to others seeking standards for consumer goods, and believes that the experience and prestige of the American Standards Association can well be called upon to guide any industry or group."

International and Latin-American Relations

The war has, of course, disrupted international cooperation in standardization work. This is true of the International Standards Association, of which the American Standards Association is the American member; and the International Electrotechnical Commission, the American branch of which is affiliated with the American Standards

Association, has to all intents and purposes gone into hibernation for the duration of the war.

Yet, on the other hand, the war has greatly stimulated interest in Inter-American cooperation in standardization work. Such cooperation offers an effective means of improving trade relations from which both the Latin-American countries and the United States would benefit. There are already well-organized national standardizing bodies in Argentina and Brazil, and similar bodies are being organized in Chile and Uruguay. At a conference in Rio de Janeiro in October of this year a "South American Committee for Technical Standards" was formed to stimulate and coordinate standardization work throughout South America, the idea being that such standards will ultimately have an important influence on the international trade of those countries.

A special committee of the American Standards Association, appointed to consider the whole question of Inter-American cooperation, recommends a broad program which would include: the exchange of information and material with all Latin-American organizations doing significant standardization work; arrangements for translation of standards into Spanish and Portuguese; and intimate cooperation with each country in the development of its standards.

I am happy to report here that Senor Ceriale, director of the national standardizing body of Argentina, has accepted an invitation to visit the United States as a guest of the American Standards Association. This visit, which has been planned for the early part of the year, will give Sr. Ceriale a chance to study at first hand the development of American industrial practices and standards. Arrangements will be made for him to visit the major manufacturing centers of the country.

The importance of this whole program of cooperation may well be summed up in a declaration made by the National Foreign Trade Council at its convention this October as follows:

"The Convention records its belief that government and industry should immediately cooperate to establish throughout Latin America a comprehensive acceptance of common material standards for manufacture, inspection, and maintenance, as a vital step forward in facilitating orderly commercial procedure."

Defense

The defense emergency program is having an important direct effect upon the activities of the American Standards Association. Dr. Anderson has told you about some of the technical projects undertaken this year for the defense program. I should like to dwell on what the American Standards Association could and should be doing to further production for defense.

The whole program has had to deal with a diversity of specifications and requirements for products—acutely so in the case of certain strategic materials. We are faced with altogether too many variations of the same specifications, many of which define what is essentially the same product.

This unnecessary multiplicity of local specifications and requirements has become a sort of technological fifth column.

Fortunately the defense industries seem to be recognizing the importance of coordinated standards. The Office of Production Management has set up a new Bureau of Industrial Conservation, one of whose principal duties is to deal with this question of standards.

We are very fortunate in having the head of this Bureau as our speaker today.

What Is Ahead

The work is making fine progress in many directions. During 1941 more standards have been approved; more new projects undertaken; more standards sold; more inquiries received about the work; and there has been more widespread interest in the activities of the Association than ever before. An opportunity seems to be opening to make a notable contribution, through a program of cooperation with our sister American Republics in standardization work, and thus help bring

about closer ties with these countries. We have even obtained new and more efficient working quarters this year, for which we are indebted to the United Engineering Trustees and for which we are extremely grateful.

Yet at the very time that these forward steps are being taken and greater opportunities for service are opening, and while the defense emergency is making greatly increased demands upon the Association, I regret to have to report that our financial situation is holding back progress in every one of these directions.

From the first of the year until the middle of November we had been making slow progress in broadening the source of support by an increase of 8 per cent in income, when suddenly we were set back by serious reductions on the part of two important trade associations. The income of these organizations had been sharply reduced, and they had passed on to the ASA severe cuts in their support.

All who have studied the subject agree that the development and use of standards through voluntary standardization is fundamental to our economic development and the maintenance of the system of free enterprise. Had it not been for the important standardization work which industry has carried on during the last half century, mass production for defense would be impossible.

69 New Standards, 15 New Projects Mark Most Active Year for ASA

A GAIN it is my duty and pleasure, as chairman of the Standards Council, to report on progress during the year, which incidentally has been the most active year in the history of the American Standards Association.

Last year the Council approved 73 standards—13 new, and 60 revisions of standards previously approved. This year the Council has approved 130 standards—69 new, and 61 revisions of standards previously approved. The output of standards this year is more than twice the output of any previous year. In addition, four emergency standards were approved under the special procedure adopted in January.

Last year, four new projects were started; this year the number is 15.

These figures are impressive in themselves, and the presentation can be made briefly. It takes

Annual Report

by R. P. Anderson

Chairman, ASA Standards Council, 1941

much longer, however, to describe the nature of our activities, and in the limited time available only a bird's eye view can be shown.

Emergency Standards

Last January we adopted a short-cut, time-saving emergency method of developing standards needed for defense purposes and four emergency standards have so far been approved under this

new procedure. One of these provides a series of tests for accuracy of engine lathes—one of the most important tools of defense production. Two other standards, developed at the request of the War Department, cover control of quality of manufactured products and materials. These

standards are intended as a guide for the manufacturer or the purchaser in maintaining the level and uniformity of quality specified for a product. The main principle involved is to help the manufacturer spot trouble in the production process *before* that trouble has become bad enough to

New Standards Approved by ASA Since the Last Annual Meeting

Accident Prevention Signs Z35.1-1941

Acme and Other Translating Threads B1.3-1941

Allowable Concentration of

Benzene Z37.4-1941

Carbon Disulfide Z37.3-1941

Carbon Monoxide Z37.1-1941

Hydrogen Sulfide Z37.2-1941

Attachment Plugs and Receptacles C73-1941

Body Sizes for Boys' Garments L11.1-1941

Building Code Requirements

Portable Steel and Wood Grandstands Z20.1-1941

Reinforced Gypsum Concrete A59.1-1941

Calcined Gypsum for Dental Plasters A65.1-1941

Compiling Industrial Accident Causes Z16.2-1941

Definitions of Electrical Terms C42-1941

Gas Burning Appliances

Furnace Temperature Limit Controls and Fan Controls, Listing Requirements for Z21.29-1941

Gas Counter Appliances, Approval Requirements for Z21.31-1941

Portable Gas Baking and Roasting Ovens, Approval Requirements for Z21.28-1941

Grinding, Polishing and Buffing Equipment Sanitation Z43-1941

Gypsum Lath A67.1-1941

Gypsum Sheathing Board A68.1-1941

Gypsum Wall Board A69.1-1941

Gypsum and Gypsum Products, Methods of Testing A70.1-1941

Impact Resistance of Electrical Insulating Materials, Methods of Test for C59.11-1941

Keene's Cement A66.1-1941

Manhole Frames and Covers for Subsurface Structures A35.1-1941

Molding Powders Used in Manufacturing Molded Electrical Insulators, Methods of Testing C59.10-1941

Petroleum Products and Lubricants

Calculating Viscosity Index, Method for Z11.45-1941

Conversion of Kinematic Viscosity to Saybolt Universal Viscosity, Method for Z11.46-1941

Distillation of Plant Spray Oils, Test for Z11.43-1941

Vapor Pressure of Petroleum Products (Reid Method), Test for Z11.44-1941

Photography

Motion Pictures (17 Standards and Recommended Practices) Z22-1941

Film Pack Tabs and Films, Dimensions for Z38.1.1-1941

Film Pack Cases, Dimensions for Z38.1.2-1941

70 mm Perforated (and Unperforated) Film for Other Than Motion Picture Purposes (Cutting and Perforating Standard), Dimensions for Z38.1.3-1941

Pigments

Acetone Extract in Dry Lampblack and Dry Bone Black, Method of Test K55-1941

Alkalinity or Acidity of Pigments, Method of Test K51-1941

Basic Sulfate White Lead K47-1941

Bleeding of Pigments, Methods of Test K52-1941

Blue Lead: Basic Sulfate K48-1941

C. P. Para Red Toner K49-1941

C. P. Zinc Yellow (Zinc Chromate) K50-1941

Dry Mercuric Oxide, Method of Chemical Analysis K59-1941

Hygroscopic Moisture (and Other Matter Volatile Under the Test Conditions) in Pigments, Method of Test K53-1941

Mass Color and Tinting Strength of Color Pigments, Method of Test K57-1941

Oil Absorption of Pigments, Method of Test K54-1941

Tinting Strength of White Pigments, Method of Test K56-1941

Yellow and Orange Pigments Containing Chromium Compounds, Blue Pigments, and Chrome Green, Method of Chemical Analysis K58-1941

Preferred Thicknesses for Uncoated Thin Flat Metals (Under 0.250 In.) B32.1-1941

Reamers B5.14-1941

Safety in Electroplating Operations Z9.1-1941

Screw Thread Gages and Gaging B1.2-1941

Soldered-Joint Fittings A40.3-1941

Steel-Butt-Welding Fittings B16.9-1940

Tubular Sleeving and Braids, Methods of Testing and Tolerances L13-1941

cause rejection of the product by the inspector. The fourth emergency standard sets up safe concentration limits for cadmium, one of the hazards to be guarded against in certain defense plants.

Emergency projects under way include minimum performance requirements for electric household refrigerators and domestic washing machines, and definitions for denim and broadcloth, as requested by the Office of Price Administration.

Additional requests for emergency projects, recently received and now under consideration, cover standards for floodlighting industrial areas, for machine-tool electrical standards, and electric flat-irons.

I think you will be impressed, as I have been, by the variety of activities under our emergency procedure. They illustrate how the ASA has fitted into the defense needs of government and industry during the year. What has been accomplished, however, is but a sample of what remains to be done. Standardization is vital to our defense activities, and every project along these lines must be completed with greatest possible speed and efficiency. Industry, however, must take the leadership in bringing to the association the many standardization problems which need solution. I think it will be obvious to all that one of the most important activities of the association, if not the most important, during the coming year is the development of defense emergency standards.

New Standards

Standards for allowable concentrations of carbon monoxide, hydrogen sulfide, carbon disulfide, and benzene were approved and issued during the year. These were prepared and approved by the normal procedure prior to the application of the emergency procedure to cadmium. The need for these standards has long been recognized, and further development may be expected. Twenty-two additional toxic substances are under consideration by the sectional committee, some of which will be handled under the emergency procedure.

The first standard in our building code program was approved during the year—on reinforced gypsum concrete. This is the first of a series of projected standards which will provide detailed requirements on such topics as light and ventilation, plumbing, loads, exits, etc., presented in a form that can be used by local building authorities.

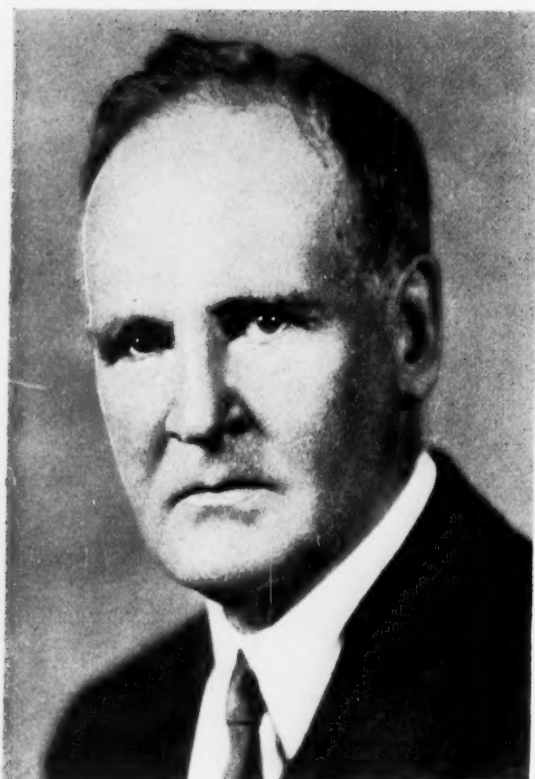
Another "first" in a new field is the standard on body sizes for boys' garments, which was approved in June after more than three years' work by a committee representative of retailers, manu-



Dr. H. S. Osborne
New Standards Council
Chairman

facturers, pattern makers, and consumers. This standard will form the basis for simplifying and standardizing the sizes of children's garments. It covers boys' sizes in the age range from kindergarten through Junior High School. The next step will be to extend the range to include younger and older children—and a parallel program will be started on girls' sizes.

Another new standard of importance is the American Standard Method of Compiling Industrial Accident Causes. This standard provides a statistical method of analyzing and recording the primary facts which are essential for accident prevention, and even though only recently available, it has been put into extensive use by companies and governmental agencies. With its companion document, the American Standard Method of Compiling Industrial Injury Rates, approved in 1937, this new standard should prove a great aid in defining the causes of industrial accidents, which is an important step toward their prevention. Also, during the year, there was approved the Standard on Specifications for Industrial Accident Signs which outlines the best current



A. W. Whitney
New Vice-Chairman of ASA
Standards Council

practice in design, application, and use of warning signs for workrooms and other public places. It contains recommendations as to the use of signs, how to place them, and how to keep them in good condition so they will be effective tools in accident prevention work.

The American Standard Specifications for Portable Steel and Wood Grandstands, the American Standard for Safety in Electroplating Operations, and the American Standard for Grinding, Buffing and Polishing are three other recently completed safety standards which should aid in the country's efforts at accident prevention.

An American Standard Definitions of Electrical Terms has been completed in the past few months, the result of fourteen years of hard work. This lists definitions for 6,000 widely used terms.

Other New Standards

Other new standards that should be mentioned deal with construction requirements for electrical

attachment plugs and receptacles, providing complete interchangeability; gas appliances; and many standards in the field of photography.

Revisions of Standards

Among the important standards revised during the year are a code for electrical meters, gas appliance standards, mechanical standards, petroleum standards, and specifications for pigments.

New Activities

In addition to the projects under the emergency procedure already mentioned, there are new projects, already approved or being considered, dealing with such diverse topics as household electric ranges, electric water heaters, electric flat-irons, adjustable-face traffic-control signal heads, and industrial method of measuring color.

With respect to the proposed standards for adjustable-face traffic-control signal heads, this standard will constitute, as far as the lenses are concerned, a revision of the first standard ever developed in the traffic field, known as the American Standard for Colors for Traffic Signals, approved in 1927. The work of the American Standards Association in this particular field is little known. However, it has made a major contribution to highway traffic operation by eliminating inconsistencies in the use of the various colors in traffic signals. It is largely because of this standard that you can drive your car all over the United States today, stopping on the red light, starting on green. This American Standard now seems to be obtaining world-wide recognition.

Conclusion

This résumé is quite inadequate to give you a complete picture of what the ASA is doing, but details of any of the activities mentioned or any others can readily be obtained from the ASA office.

The accomplishments of the year just drawing to a close have been made possible by the support of the technical societies, the trade associations, and the companies that have appointed representatives on the many technical committees. May I express appreciation on behalf of the Standards Council for this cooperative activity. I think we all should realize what industry owes to the 600 organizations and to the 3000 men and women who give their time to the technical committee programs.

In closing, I wish to add a personal tribute to the various members of the ASA staff with whom I have had contact for their ability and their unflagging zeal and enthusiasm in handling the ever-broadening activities of the association, particularly in this emergency.

Memoranda Clarify Working Relations on Standards

AS Lessing J. Rosenwald, chief of the OPM Bureau of Industrial Conservation, announced in his address at the ASA Annual Meeting (see page 3), the cooperative relations of the OPM, OPA, the National Bureau of Standards, and the American Standards Association in simplification and standardization work were confirmed and clarified by an inter-office memorandum signed November 7 by Mr. Rosenwald, Robert A. Brady, Lyman J. Briggs, and P. G. Agnew.

The memorandum points out that simplification in cooperation with the defense agencies will be carried on by the National Bureau of Standards, while the American Standards Association will confine its activities in this connection to standardization. (A Simplified Practice is defined in the memorandum as "a list of sizes, varieties, types or grades of products which has been approved for regular stock purposes, after superfluous variety has been eliminated and which can be carried out without involving technical standardization.") The ASA will clear each standardization project undertaken for the defense agencies with the agencies involved, particularly the Office of Production Management and Office of Price Administration.

Agreement Between OPM and OPA

As Mr. Rosenwald explained in his address, the agreement clarifying the relations between the OPM Bureau of Industrial Conservation and the OPA Consumers Division was released for publication November 13. The release, which consists largely of correspondence between OPM and OPA, quotes from a letter from the former to the latter as follows:

"The Bureau of Industrial Conservation will be responsible for the handling of all *simplified practice procedure* as defined below:

"A 'Simplified Practice' is defined as a list of sizes, varieties, types, or grades of products which has been approved for regular stock purposes, after superfluous variety has been eliminated and which can be carried out without involving technical standardization.

"The Consumer Division of the Office of Price Administration will be responsible for the handling of all *standardization* with the understanding that all work necessary in determining such standards from the point of view of simplified prac-

tice will be handled in the Bureau of Industrial Conservation.

"The Bureau of Industrial Conservation will provide office space for a representative of the Consumer Division and everything which the Bureau of Industrial Conservation does in the simplified practice field will be open to your representative. Your representative will take part in all procedures concerning simplified practice where he considers it advantageous to present the consumer's point of view. A similar arrangement will be made by the Consumer Division for a representative of the Bureau of Industrial Conservation on matters pertaining to standards developed in your Division.

"If questions arise regarding jurisdiction under this agreement, they will be settled by direct conference between you and me. . . ."

Dr. Brady Explains His Work

In order that producers, distributors, and consumers may understand the position of the Consumer Division with reference to standards, Dr. Brady added the following comments:

"The Standards and Consumer Needs work of the Consumer Division has been undertaken to develop the use of standards, grades, and quality-identifying labels that will effectively assist the defense program by providing aids for the more adequate protection of consumer interests.

"It is not, however, the purpose of the Standards Section of the Consumer Division to promote standards as such, but only those standards that are of definite and immediate value to ultimate consumers and are demonstrably feasible in specific situations. Other sections of OPM and OPA are concerned with simplification, standards, and specifications as they relate to conservation and better use of materials, manpower, and plant capacity for belligerent purposes. Our concern is with selecting among these alternative types of standards those that, while serving the same ends, likewise give the consumer the best possible value for his money.

"Our concern, that is to say, is not with generalities about standards or grading systems, but with this specific question: in a particular situation, with respect to a given commodity or service, will any standards or grading system make possible better use of materials, plant capacity, and

manpower, and at the same time aid the consumer in getting the best possible value for his dollar? Where the answer is 'yes', the Consumer Division will be wholeheartedly and emphatically in favor of using or establishing standards. If the standards are bad, technically unsatisfactory, vague, or otherwise imperfect, but still clearly better than 'nothing at all', the Consumer Division will still be in favor of their use. If standards do not exist, or for one reason or another are not immediately feasible in any particular commodity field, or are less effective than some other device that better or more expeditiously serves the same ends, then the Consumer Division will not favor it—it will even oppose—the introduction of standards."

To assist the OPM Conservation Bureau in its simplification program, E. W. Ely, head of the Simplified Practice Division of the National Bu-

reau of Standards, has been assigned to the new Bureau. A call has already been sent to business to work with the Conservation Bureau in drafting simplification programs.

The Standards Section is now working on several standardization projects, notably textiles, washing machines, and refrigerators, on which the American Standards Association has been asked to set up emergency projects.

As shown in INDUSTRIAL STANDARDIZATION, September, pp. 264-267, the Justice Department has given its approval of industry-wide simplification and standardization agreements if these agreements are carried out with the approval or at the request of either the OPM or the OPA. Under such conditions, standardization or simplification agreements will not be considered as violating the anti-trust laws. Attorney-General Biddle has declared.

42 Aircraft Engine Standards Are Completed by SAE

The Aeronautics Division of the Society of Automotive Engineers' Standards Committee recently approved 42 new aircraft-engine standards, John A. C. Warner, secretary and general manager of the Society announces. The work was initiated following a request for standards in the aircraft industry by the Office of Production Management February 28, and was divided between four subdivisions, serving as steering committees, and 34 subcommittees, each charged with a specific assignment.

The standards cover problems of interest to aircraft-engine manufacturers, and include such subjects as standard altitude graph sheets for the presentation of aircraft-engine performance, standard carburetor control connections, standard carburetor flanges, propeller shaft ends, tachometer drives, magnetos, aircraft-engine bolt heads, aircraft-engine screw heads, aircraft-engine hexagon nuts, lockwire cotter pins, procedures and equipment for the preparation of engines for shipment and storage to prevent corrosion, standard definitions of aircraft-engine terms, as well as symbols and sketches for pressures and temperatures in an aircraft-engine induction system. These standards listed are the result of the work of the Aircraft-Engine Subdivision of which Val Cronstedt, Pratt & Whitney Aircraft, is chairman.

Although this represents the first group of standards completed, each committee still has an extensive program of work awaiting its attention and additional new standards will be completed and approved as rapidly as the work can be handled, Mr. Warner declares. In addition, the

Aircraft-Engine Propeller Subdivision and the Aircraft Accessories and Equipment Subdivision have a series of subcommittees hard at work in their own fields and a large number of standards in process of coordination with interested aircraft and aircraft-equipment manufacturers and users.

The SAE Aeronautics Division consists of: Arthur Nutt, chairman, Wright Aeronautical Corporation; Hall Hibbard, vice-chairman (Aircraft), Lockheed Aircraft Corporation; L. S. Hobbs, vice-chairman (Engines), Pratt & Whitney Aircraft; Val Cronstedt, Pratt & Whitney Aircraft; J. B. Johnson, Air Corps, Wright Field; William Littlewood, American Airlines, Inc; Erle Martin, Hamilton Standard Propellers.

Copies of any or all of these approved standards are available from the Society of Automotive Engineers, 29 West 39 Street, New York. The price is five cents per sheet with appropriate reductions for large orders.

Brazilian Government Printer Visits ASA Headquarters

Dr. Rubens Porto, Public Printer for the Government of Brazil, who has been spending a month in the United States, called at the office of the American Standards Association December 22. He consulted members of the ASA staff about technical standardization questions concerned with the printing trade and with paper sizes.

Before Dr. Porto left Brazil he had taken part in the organization meeting of the new Inter-American Standardization Committee.

Electrical Standards Show Active Progress in 1941

IMPORTANT work on all phases of electrical engineering is shown in the annual reports of ASA technical committees to the Electrical Standards Committee for 1941. Broader scopes for projects to enable the work to expand are being worked out by several of the committees, an indication of the expansion of the program now going on in all directions. Several of the most important standards under the jurisdiction of the Electrical Standards Committee have either been completed during the past year, or have taken strides forward which will make it possible to bring them to completion within the first part of 1942. Among these are the standard for Definitions of Electrical Terms, which was completed and approved in 1941; the standard for transformers which was published in 1940 for a year's trial use and which is now being put into shape for final approval; and the standard for circuit breakers which was published in 1941 for a year's trial. On this latter standard work is being started to correlate comments and criticisms received during the year and to make the necessary changes before final approval.

The reports of the electrical committees are published here to give ASA members a complete picture of the work now going forward under the ASA electrical standards program. The name of the organization which has administrative leadership for the work of the committee is listed at the end of each report. Wherever the name of the chairman or secretary is shown, however, the Electrical Standards Committee itself has taken this administrative responsibility.

National Electrical Code (C1-1940)—

The subcommittees are expected to report their recommendations for amendments to the 1940 edition of the National Electrical Code on or before May 15, 1942. These reports will be circulated to the industry and to the public and will be studied in detail by members of the various sections of the International Association of Electrical Inspectors during the summer. Unless national conditions prevent, a meeting of the committee in charge of the code will be held in December, 1942, when action looking towards the next edition will be taken.—*National Fire Protection Association.*

Large majority of ASA committees report work going forward on new standards or on revisions to keep existing standards up-to-date

Important new standards, such as those for transformers and circuit breakers, published last year for trial use, are now near completion

National Electrical Safety Code (C2)—

The revision of the first five parts of this Code have now been approved and an article by A. B. Campbell, American Institute of Electrical Engineers, secretary of the committee, will be published soon in *INDUSTRIAL STANDARDIZATION*.—*National Bureau of Standards.*

Code for Protection Against Lightning (C5)—

The main business of this ASA sectional committee at present is the revision of Part III, for the protection of structures containing inflammable liquids and gases. The scope of this part, it is expected, will be enlarged to include protection of powder magazines. Part III is now a tentative American Standard, but after revision will be submitted for approval as American Standard.—*American Institute of Electrical Engineers; National Bureau of Standards.*

Terminal Markings for Electrical Apparatus (C6)—

This standard was approved and published in 1938. In order to keep it strictly up to date, the sponsor is now canvassing its various product groups to determine (1) whether any changes should be made, and (2) whether additional markings for apparatus not heretofore covered should be included. The information collected will be called to the attention of the ASA committee.—*National Electrical Manufacturers Association.*

Insulated Wires and Cables (C8)—

Since the last Annual Report the committee has balloted on six specifications, five of which were approved for revision and advancement to standard. The withdrawal of one specification was approved. Letter ballots on these specifications are now before the Electrical Standards Committee:

- Cotton Braid for Insulated Wire and Cable (C8.12)
- Impregnated Paper Insulation for Lead-Covered Power Cable (C8.10)
- Metallic Coverings for Insulated Wire and Cable (C8.15)
- (Type SB) Slow-Burning Wire and Cable (C8.9)
- Varnished Cloth Insulation for Lead-Covered or Braid-Covered Power Cable (C8.13)
- Weatherproof Wires and Cables (C8.8) (ESC voting on withdrawal of standard)

The sectional committee now has under consideration the following specifications:

- Bare Copper Cable for Insulated Conductors, Hard, Medium Hard, or Soft (C8.14-1938)
- Weather-Resistant Wire and Cable URC Type (C8.18-1936)

This latter standard cannot be reported to the Electrical Standards Committee until some changes have been made to bring it into line with existing railroad specifications. A letter ballot is now being prepared to revise the Bare Copper Cable Specifications to bring them into line with the recently issued specifications of the American Society for Testing Materials (B 158-41 T).

Some work has been done on the preparation of standards covering the more usual constructions of rubber-insulated cables. The technical committees are also considering specifications for rubber-faced cloth tapes and are working on other projects such as general standards and definitions.

The general program for the committee as set up several years ago, has, in the main, been completed. In the future, therefore, the committee's chief duty will be to make periodic revisions. The committee has in the past worked closely with other organizations in the industry which have issued their own specifications and will continue to cooperate where it is felt that the sectional committee can act most satisfactorily as a clearinghouse for these industry-sponsored requirements.—*G. M. Haskell, Vice-Chairman; W. H. Bassett, Jr., Secretary.*

Hard-Drawn Aluminum Conductors (C11)—

This committee in recent years has concentrated its efforts on cooperation with other national committees of the International Electrotechnical Commission toward formulation of international standards for aluminum electrical conductors. This activity is at a standstill due to present world conditions.—*American Institute of Electrical Engineers.*

Code for Electricity Meters (C12)—

A revision of this standard was approved May 5, 1941, and printed copies were available in June. An article by H. B. Brooks and W. C. Wagner (*INDUSTRIAL STANDARDIZATION*, June, 1941, page 143) tells how the need for uniform procedure to assure the most economical manufacture of standard metering equipment and more uniform installation and test methods brought about the revision of the Code.—*ASA Electric Light and Power Group; National Bureau of Standards.*

Tubular Steel Poles for Electric Line Construction (C13-1926)—

There have been no developments which would indicate a need for revision or change in the status of this standard.—*American Transit Association.*

750 Volt Direct Suspension Overhead Trolley Contact Construction (C15-1935)—

There is no indication that a revision or change in the status of this standard is needed in the near future.—*American Transit Association.*

Radio (C16)—

The ASA Committee on Radio, after several years of effort, has finally obtained a unanimous vote on proposed recommended practices for loud-speaker testing. It has also completed a unanimous affirmative ballot on recommended practices for volume measurements of electrical speech and program waves. These two proposals are being considered by the sponsor and it is expected that they will be submitted to the American Standards Association within the next few weeks.—*Institute of Radio Engineers.*

Dry Cells and Batteries (C18)—

The revised American Standard, Specifications for Dry Cells and Batteries, just approved, provides for the first time a series of standard terminals for radio A and B batteries and hearing aid batteries. This work represents an important contribution to the art. The standardization of hearing aid battery terminals, which was undertaken at the request of ASA Committee on Acoustical Measurements and Terminology (Z24) should be of great assistance to all concerned with the various types of hearing aid instruments. An article by the chairman of the committee, Dr. G. W. Vinal, to be published in an early issue of *INDUSTRIAL STANDARDIZATION*, will give more detailed information about the revision.—*National Bureau of Standards.*

Industrial Control Apparatus (C19-1928)—

This ASA committee has completed a final letter ballot on a revision of this standard, and the replies are now being correlated.—*American Institute of Electrical Engineers; National Electrical Manufacturers Association.*

Insulators for Electric Power Lines (C29)—

No meetings have been held by this committee this year, and the work on revising these standards has not gone forward as fast as the committee had hoped.—*A. B. Campbell, Secretary.*

Electrical Devices and Materials with Relation to Fire and Casualty Hazards (C33)—

There has been no change in the status of this project during the past year.—*Underwriters' Laboratories, Inc.*

Rotating Electrical Equipment for Railway Cars and Locomotives (C35-1936)—

The decision of the American Standards Association to discontinue the use of tentative standards has made it necessary to check, modify, and change to a regular standard the tentative AIEE standard No. 11 which had been approved by the ASA as the American Tentative Standard C35-1936. The AIEE committee recommendations were forwarded to Toronto for a meeting of the ASA committee in June. This committee then turned its recommendations over to the AIEE which, as sponsor, is required to accept, modify, or reject them.—*American Institute of Electrical Engineers.*

Power Switchgear (C37)—

The proposed American Standard for A-C Power Circuit Breakers (C37.4/9) was published for a year's trial use and criticism in January, 1941. (See INDUSTRIAL STANDARDIZATION, January, 1941, page 7.) An AIEE subcommittee, appointed to revise the 1938 edition of AIEE Standard 19 on Oil Circuit Breakers, expects to make the results of its work available to ASA committee C37 for use in preparing a final copy of the proposed standard, instead of publishing a revision of AIEE standard 19. The AIEE committee has indicated that it has numerous changes and additions to suggest in the proposed American Standard.

A revised draft of a proposed American Standard for air switches (C37.3) has been circulated in the subcommittee. This draft takes into account all comments received on the earlier draft as well as changes in source material, such as the 1940 edition of AIEE standard 19. As this publication is still being studied by the AIEE

The Electrical Standards Committee re-elected its officers and executive committee at its Annual Meeting December 9. Charles Rufus Harte, representing the American Transit Association, was re-elected chairman; Sidney Withington, representing the Association of American Railroads, vice-chairman; and J. W. McNair, of the ASA staff, secretary.

Members of the Executive Committee are:

Charles Rufus Harte, ex officio
L. F. Adams, National Electrical Manufacturers Association
R. E. Hellmund, American Institute of Electrical Engineers
P. H. Chase, Electric Light and Power Group
A. R. Small, Member-at-large
H. L. Huber, Member-at-large

subcommittee after the year of trial use that expired in June, 1941, this second draft will undoubtedly undergo further changes before it can be submitted to the sectional committee for ballot.

The following projects have been deferred awaiting outcome of AIEE committee work:

Apparatus bushings
High voltage fuses and current limiting resistors
Metal enclosed switchgear
Switchgear assemblies

In active projects on which activity by an ASA committee would be premature are:

Large air circuit breakers (C37.11)
Network protectors
Power connectors

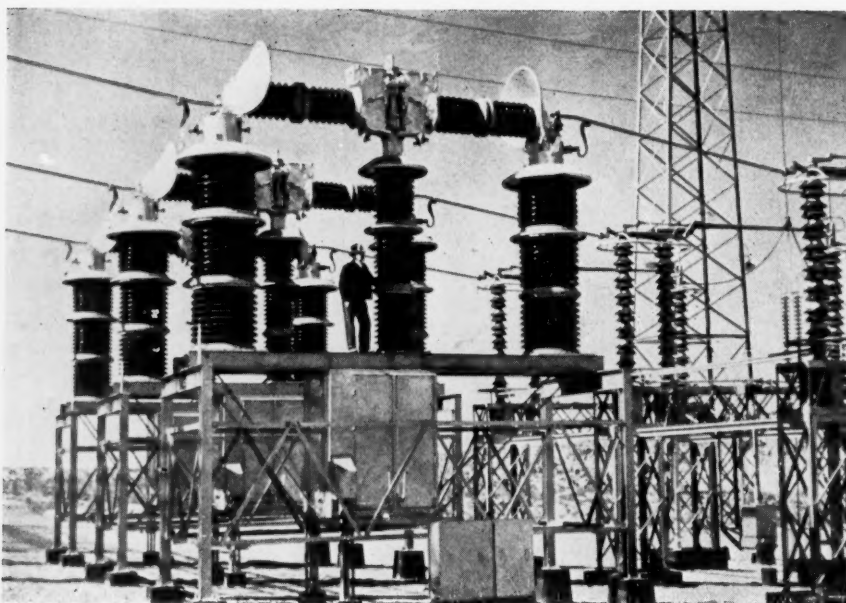
—*H. R. Summerhayes, Chairman.*

Electrical Measuring Instruments (C39)—

No meetings of this committee were held during the year. The present American Standard for Electrical Measuring Instruments is not likely to be immediately revised. The work of a subcommittee of the AIEE Instruments and Measurements Committee which is studying the method of expressing instrument performance will no doubt eventually lead to the modification of the present standard, however, since some suggestions have arisen in connection with this work in applying the performance requirements in the American Standard.—*E. J. Rutan, Chairman.*

Definitions of Electrical Terms (C42)—

The work on the first edition of this important



Courtesy General Electric Co.

Ultra-high-speed oil circuit breakers of the new low oil content design covered in the proposed American Standard, now nearing completion

standard was brought to its close by its approval as American Standard during the year. The standard, which includes definitions of more than 4,000 terms, all in the electrical field, represents a major accomplishment which has been under development for about 15 years. The printing of the standard is now under way and copies will be available in a few months.—*American Institute of Electrical Engineers.*

Rolled Threads for Screw Shells of Electric Sockets and Lamp Bases (C44)—

The status of this project is unchanged since our report of last year. At that time we stated that the subject of applying standard tolerances to screw shells after assembly instead of to the gages used in their manufacture was discussed from time to time. The work, however, has never progressed to the extent of preparing a definite proposal for standards.—*American Society of Mechanical Engineers; National Electrical Manufacturers Association.*

Rotating Electrical Machinery (C50)—

This committee is now active on a revision of the American Standard for Rotating Electrical Machinery (C50-1936). At a meeting in January, comments received from members of the committee and others were considered. Based on decisions at this meeting, a draft of revised standards was prepared which is now before the committee for letter ballot. This will not necessarily be the final ballot. In case a sufficient vote for approval is not obtained, another meeting may

be necessary. The C50 committee has cooperated with the committee on Definitions of Electrical Terms (C42) by reviewing and suggesting changes in the definitions. The present plan is to omit definitions from the American Standard for Rotating Electrical Machinery since these will be included in the American Standard Definitions of Electrical Terms (C42-1941).—*L. F. Adams, Chairman; E. B. Paxton, Secretary.*

Electric Welding Apparatus (C52)—

No meetings of this committee or of its subcommittees have been held during the year. The work has not progressed as rapidly as the chairman and the sponsor have desired, due to the preoccupation of the members with the unusual demands of industry. Some progress in the development of the projects has been made through correspondence, however. In order to expedite the work, Chairman L. W. Clark has established a definite time schedule and has requested the two subcommittees (the Subcommittee on Electric Arc Welding Apparatus and the Subcommittee on Resistance Welding Apparatus) to have a preliminary report submitted to him by January 15, 1942.—*American Institute of Electrical Engineers; National Electrical Manufacturers Association.*

Capacitors (C55)—

No suggestion for revision of the American Standard approved in 1934 has been received.—*American Institute of Electrical Engineers.*

Transformers (C57)—

The committee on transformers held its final meeting on November 6 and 7, 1941, to revise and bring up-to-date the Proposed American Standards for Transformers, Regulators, and Reactors (C57.1); the Proposed American Recommended Practice Test Code for Transformers, Regulators, and Reactors (C57.2); and the Proposed American Recommended Practice Guides for Operation of Transformers (C57.3). The revised draft is now being sent out to the committee for letter ballot. Unless some unforeseen controversial points arise, it will be ready for submission to the ASA for approval in the near future.—*V. M. Montsinger, Chairman; E. B. Paxton, Secretary.*

Electrical Insulating Materials (C59)—

The following ASTM standards, submitted to the ASA on the recommendation of this committee, were approved as American Standard during the year:

Standard Methods of Testing:

- Electrical Insulating Oils (C59.2-1941; ASTM D 117-40)
- Impact Resistance of Electrical Insulating Materials (C59.11-1941; ASTM D 256-38)
- Powders Used in Manufacturing Electrical Insulators (C59.10-1941; ASTM D 392-38)

Also on the recommendation of this committee, the American Society for Testing Materials has submitted the Standard Specifications for Rubber Gloves for Electrical Workers on Apparatus or Circuits Not Exceeding 3000 Volts to Ground (ASTM D 120-40) to the ASA for approval as American Standard.

The following ASTM and NEMA standards are now being reviewed by special committees of the ASA committee to consider whether they should be brought before the ASA for approval as American Standard:

American Society for Testing Materials—

- Laminated Round Rods Used in Electrical Insulation, Methods of Testing (D349-39)
- Laminated Tubes Used in Electrical Insulating (D 348-39)
- Shellac Used for Electrical Insulation (D 411-40)

National Electrical Manufacturers Association—

- Laminated Phenolic Products Standards
- Manufactured Electrical Mica Standards
- Recommended Practice for Machining and Punching of Laminated Phenolic Plate

The following ASTM methods of test and specifications for shellac, recommended by Committee D-1 for consideration by the ASA, are now being reviewed by a special committee of ASA Committee C59 to determine whether there are any

objectionable features so far as their electrical uses are concerned:

- Dry Bleached Shellac, Specifications for (D 207-35)
- Orange Shellac, Specifications for (D 237-41)
- Shellac Varnishes, Specifications for (D 362-41)
- Methods of Sampling and Analysis of Shellac (D 29-40)

The first step in compiling a library of standards for electrical insulating materials, to be filed in the office of the secretary of this committee, has

Four New, 16 Revised Standards Is ESC Record for 1941

Four new standards and 16 revised standards are the record of achievement for 1941 for the committees working under the supervision of the ASA Electrical Standards Committee. These recently approved standards are:

New

- Attachment Plugs and Receptacles (C73-1941)
- Definitions of Electrical Terms (C42-1941)
- Impact Resistance of Electrical Insulating Materials, Method of Test for (C59.11-1941)
- Molding Powders Used in Manufacturing Molded Electrical Insulators, Methods of Testing (C59.10-1941)

Revised

- Abbreviations for Scientific and Engineering Terms (Z10.1-1941)
- Code for Electricity Meters (C12-1941)
- Dry Cells and Batteries, Specifications for (C18-1941)
- Electrical Insulating Oils (C59.2-1941)
- Graphical Symbols for Mechanical Engineering (Z32.2-1941)
- Hard-Drawn Copper Wire, Specifications for (H4.2-1941)
- Medium-Hard-Drawn Copper Wire, Specifications for (H4.3-1941)
- Powders Used in Manufacturing Electrical Insulators (C59.10-1941)
- Safety Rules for the Installation and Maintenance of Electrical Supply Stations, Part I, National Electrical Safety Code (C2.1-1941)
- Safety Rules for the Installation and Maintenance of Electric Utilization Equipment, Part 3 of the National Electrical Safety Code (C2.3-1941)
- Chestnut Poles, Specifications and Dimensions (05.3-1941)
- Douglas Fir Poles, Specifications and Dimensions (05.6-1941)
- Lodgepole Pine Poles, Specifications and Dimensions (05.5-1941)
- Southern Pine Poles, Specifications and Dimensions (05.4-1941)
- Western Red Cedar Poles, Specifications and Dimensions (05.2-1941)

been taken with the preparation of a preliminary list of available standards in this field. The list is expected to be useful as a guide in the activities of the committee. If there are found to be duplicate or conflicting standards, they can then be harmonized and a single standard developed as a national standard. Gaps where standards are still needed may also be found.—*American Society for Testing Materials.*

Vacuum Tubes for Industrial Purposes (C60)—

Contact with individual members of this committee, particularly those serving on standardizing committees of other engineering societies, has not indicated that further standardization by this group is desirable at this time.—*Dayton Ulrey, Chairman.*

Electric and Magnetic Magnitudes and Units (C61)—

The function of this ASA sectional committee is to provide for American participation in work of the International Electrotechnical Commission. Since there has been no activity of the IEC in the last two years the committee has naturally had no proposals to consider. In this country, however, there continues to be considerable discussion of systems of units, including the mks system recommended by the IEC, but there has been no occasion for formal action by the sectional committee.—*E. C. Crittenden, Vice-Chairman.*

Lightning Arresters (C62)—

This ASA committee is at work on a revision of the American Standard approved in 1936.—*American Institute of Electrical Engineers.*

Radio-Electrical Coordination (C63)—

In September, 1941, a meeting was held at

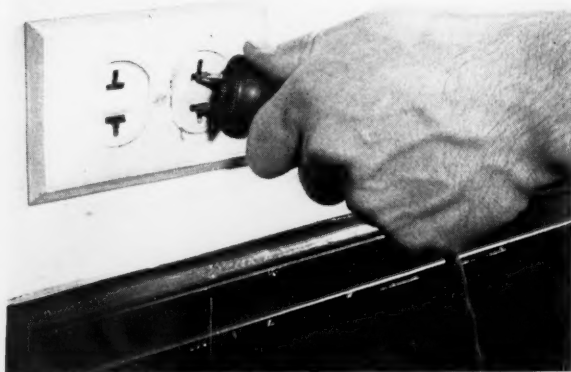


Photo by Giles from Black Starr

ASA approval recognizes wide use of NEMA standard for attachment plugs

which tests were made to determine the performance of several different types of radio-noise meters. It is hoped that the results of these tests, which are now being studied, will be helpful in the standardization of the specifications for a radio-noise meter.—*Radio Manufacturers Association.*

Carbon Graphite and Metal Graphite Brushes (C64)—

Since this standard was approved under the Existing Standards Method several years ago, it has become evident that certain changes are needed. A sectional committee is now being organized, therefore, to handle these changes.—*National Electrical Manufacturers Association.*

Power-Operated Radio Receiving Appliances (C65)—

Preliminary work has been completed on a revision of this standard. It is expected that acceptances of the revision will be received soon so that the revised standard can be submitted to the American Standards Association as a Proprietary Standard.—*Underwriters' Laboratories, Inc.*

Preferred Voltages (C67)—

A definite proposal for consideration by this committee is near completion by a committee of the American Institute of Electrical Engineers. It should be available within the next few months.—*D. F. Miner, Chairman.*

Sphere Gaps (C68)—

This committee was formed during the past year and has not as yet held a meeting. It has under consideration a revision of the AIEE sphere gap standards to give optional 60-cycle values from three-quarter sphere diameter spacings to full diameter spacings. This will be discussed at a meeting which will probably be held during the AIEE Winter Convention.—*American Institute of Electrical Engineers.*

Electric Fences (C69)—

The National Bureau of Standards, sponsor for this project, is at present organizing a sectional committee and it is expected that a meeting will be held in January, 1942.—*National Bureau of Standards.*

Domestic Electric Flatirons (C70)—

Household Electric Ranges (C71)—

Electric Water Heaters (C72)—

All three of these projects will be handled by sectional committees, the organization of which is

now completed, and the membership submitted to the ASA for approval. Arrangements will be made for an early meeting to study certain proposals which are urgently needed because of their relation to defense work.—*National Electrical Manufacturers Association.*

Attachment Plugs and Receptacles (C73)—

This standard was approved recently and published under the Existing Standards Method. (See *INDUSTRIAL STANDARDIZATION*, August, 1941, page 201.)—*National Electrical Manufacturers Association.*

Copper Wire (H4)—

Two meetings of ASTM Committee B-1, which has a membership coincident with that of ASA sectional committee H4, were held during the year. In March the following ASTM standards, submitted to the ASA on the recommendation of this sectional committee, were reapproved as American Standard in their revised form:

Hard-Drawn Copper Wire, Standard Specifications for (H4.2-1941; ASTM B1.40)

Medium-Hard-Drawn Copper Wire (H4.3-1941; B2-40)

The revised Specifications for Soft or Annealed Copper Wire (H4.1) and for Hot Rolled Copper Rods for Electrical Purposes (H4.7) are now before the ASA for reapproval in their revised form.—*American Society for Testing Materials.*

Wood Poles (05)—

During the past year the tentative specifications for the six major pole timbers used in the United States have been reviewed, and approved as American Standards by the ASA. Specifications and dimensions are published in one document for each type of pole. The standards cover northern white cedar poles, western red cedar poles, chestnut poles, southern pine poles, lodgepole pine poles, and Douglas fir poles. (See *INDUSTRIAL STANDARDIZATION*, June 1941.)

Work is now under way toward formation of subcommittees to study the American Standard Specifications for Southern Pine Poles and Western Red Cedar Poles to determine if revisions are desirable. Work is also going forward to form a subcommittee to consider enlarging the scope of the committee to include other pole species.—*ASA Telephone Group.*

Illuminating Engineering Nomenclature and Photometric Standards (Z7)—

A revision of the standard approved in 1932 has been submitted to the American Standards Association for approval by the Proprietary Sponsor.—*Illuminating Engineering Society.*



Courtesy Bell Telephone Laboratories

American Standard western red cedar poles being given butt treatment

Letter Symbols and Abbreviations for Science and Engineering (Z10)—

A revised American Standard for Abbreviations was approved by the ASA in March, 1941. (See article in *INDUSTRIAL STANDARDIZATION*, April, 1941, page 81.) Letter Symbols for Hydraulics (Z10.2) and Letter Symbols for Mechanics for Solid Bodies (Z10.3), revisions of Z10b-1929 and Z10a-1932, are now before the ASA for approval. The committee is also actively at work on other standards.—*American Association for the Advancement of Science; American Institute of Electrical Engineers; American Society of Civil Engineers; American Society of Mechanical Engineers; Society for the Promotion of Engineering Education.*

Graphical Symbols and Abbreviations for Use on Drawings (Z32)—

During the year a standard for Graphical Symbols for Mechanical Engineering was submitted and approved as American Standard. The committee is working on revisions of all existing graphical symbol standards and also on the preparation of a number of new standards. Several of these are in final form and it is expected they will be submitted for approval during 1942.—*American Institute of Electrical Engineers.*

New Association and Government Standards

(See "ASA Standards Activities", page 26, for new American Standards and progress on ASA projects)

Since the publication of the December issue of INDUSTRIAL STANDARDIZATION, the ASA Library has received for its classified files copies of standards and specifications from the organizations listed below.

These standards may be consulted by ASA members at the ASA Library.

Anyone desiring copies for his own use should write direct to the organization issuing the standard.

Associations and Technical Societies

American Welding Society (33 West 39th Street, New York, N. Y.)

Standard Welding Qualification Procedure (Tentative) 1941 ed 25¢

Definitions of Welding Terms and Master Chart of Welding Processes (Tentative) 1940 ed 25¢

Welding Symbols and Instructions for Their Use 1940 ed 25¢

Mechanical Testing of Welds, Standard Methods for (Tentative) 1940 ed 25¢

Iron and Steel Arc Welding Electrodes, Specifications for (Tentative) 1940 ed 25¢

Welded Highway and Railway Bridges, Specifications for 1941 ed Members 75¢, Non-Members \$1.00

Field Welding of Steel Storage Tanks, Rules for 1940 ed 25¢

Preparing for Welding or Cutting Certain Types of Containers Which Have Held Combustibles, Recommended Procedure in 1940 ed 25¢

Thermal Stresses and Shrinkage in Welded Ship Construction, Report on 1941 ed 25¢

Hydraulic Institute (90 West Street, New York, N. Y.)

Pumping Equipment, Material Specifications 1939 25¢

Thermodynamics of Boiler Feeding 50¢

National Board of Fire Underwriters (85 John Street, New York, N. Y.)

Gravity and Pressure Tanks, Construction and Installation NBFU Pamphlet No. 22 September 1941 (Supersedes 1931 ed)

Combustible Fibres, Storage and Handling NBFU Pamphlet No. 44 September 1941 (Supersedes 1937 ed)

Municipal Fire Alarm Systems, Installation, Maintenance and Use NBFU Pamphlet No. 73 August 1941 (Supersedes 1934 ed)

Stoker Manufacturers Association (307 N. Michigan Avenue, Chicago, Ill.)

SMA Minimum Setting Heights for Heating Boilers, 2nd ed 1940

SMA Uniform Stoker Rating, 5th ed 1937

Testing Stoker-Fired Steam-Heating Boilers, SMA Standard Code for 1938

Underwriters' Laboratories, Inc. (161 Sixth Avenue, New York, N. Y.)

Time-Indicating and Recording Appliances October 1941

(A complete list of UL Standards covering electrical devices and materials, as revised to Dec. 2, 1941, is available.)

United States Government

National Bureau of Standards (Washington, D. C.)

Specifications for the Manufacture and Installation of Four-Section and Two-Section, Knife-Edge Railway Track Scales (Superseding NBS Circulars C83 and C333) Letter Circular 662 October 1941

Simplified Practice Recommendations

Approved by Standing Committee and Circulated to Industry

Eaves Trough, Conductor Pipe, Fittings and Ridge Rolls (Revision of R29-39)

Roofing Terns (Revision of R30-37)

Accepted by Industry and Promulgated

Metal Lath R3-41

In Print (Copies available from Superintendent of Documents, Government Printing Office, Washington, D. C.)

Large-Tube Cast-Iron Radiators R174-41

(An alphabetical list of Simplified Practice Recommendations, revised to November 1, 1941, is also available.)

Federal Specifications Executive Committee (U. S. Treasury Department, Washington, D. C.)

(Copies available from Superintendent of Documents, Government Printing Office, Washington, D. C.)

The date after the title of the specification indicates when the specification becomes effective.

Aluminum; ingots (Superseding QQ-A-451) QQ-A-451a January 15, 1942

Aluminum-Alloy (A1-61), (Aluminum-Magnesium-Silicon); plates, sheets, and strips (New) QQ-A-327 January 15, 1942

Federal Specifications—(Continued)

Aluminum-Alloy (Aluminum-Surfaced) (AL-1702), (Aluminum-Copper-Magnesium-Manganese); plates, sheets, and strips (New) QQ-A-361 January 15, 1942	Crushed-Stone, Crushed-Gravel, and Crushed-Slag; (for) bituminous-concrete-base or surface-course (Amendment-1) SS-C-731a January 15, 1942
Aluminum-Alloy (Aluminum-Surfaced) (AL-24C2), (Aluminum-Copper-Magnesium(1.5%) - Manganese); plates, sheets, and strips (New) QQ-A-362 January 15, 1942	Crushed-Stone and Crushed-Slag; (for) bituminous-macadam-base or surface-course (Amendment-1) SS-C-736a January 15, 1942
Apples: canned (Superseding Z-A-611a) Z-A-611b January 15, 1942	Crushed-Stone, Crushed-Slag, and Gravel; (for) bituminous-surface-treatment (Amendment-1) SS-C-741a January 15, 1942
Apricots: canned (Superseding Z-A-631) Z-A-631a January 15, 1942	Crushed-Stone and Crushed-Slag; (for) waterbound-base or wearing-course (Amendment-1) SS-C-746a January 15, 1942
Asphalt: cut-back (for) road work (Superseding SS-A-671) SS-A-671a January 15, 1942	Dishes: culture and petri (New) DD-D-411 January 15, 1942
Beef: fresh (Superseding PP-B-221) PP-B-221a January 15, 1942	Drums: steel, type 5 (for inflammable or poisonous liquids) (Superseding RR-D-726) RR-D-726a January 2, 1942
Beets: canned (Superseding JJJ-B-181) JJJ-B-181a January 15, 1942	Drums: steel, type 6C (for inflammable solids or oxidizing materials) (Superseding RR-D-741) RR-D-741a January 15, 1942
Boxes: wood-crealed-plywood (Superseding NN-B-601) NN-B-601a January 15, 1942	Enamel: heat-resisting (400 F), black (New) TT-E-496 January 2, 1942
Broadcloth: cotton, mercerized (Amendment-1) CCC-B-686 January 15, 1942	Fish: fresh (Superseding PP-F-381a) PP-F-381b January 15, 1942
Bronze, Aluminum; castings (Superseding QQ-B-671) QQ-B-671a January 15, 1942	Fittings: cable and conduit (Amendment-1) W-F-406 January 2, 1942
Brooms: fiber (Amendment-2) H-B-56 December 15, 1941	Flange-Dimensions, Standard; (classes 125 and 250 cast-iron flanges; classes 150, 250, and 300 bronze flanges), (for land use) (Superseding WW-F-406) WW-F-406a January 15, 1942
Brushes	Funnels, Glass: fluted or ribbed (New) DD-F-796 January 15, 1942
Calcimine (Amendment-1) H-B-141 December 15, 1941	Funnels, Glass: smooth (chemical) (New) DD-F-806 January 15, 1942
Dust: painter's, flat (Amendment-1) H-B-211 December 15, 1941	Gauze: plain (Amendment-1) CCC-G-101a January 2, 1942
Fitch, flat (Amendment-2) H-B-241 December 15, 1941	Glue: casein-type, water-resistant (New) C-G-456 January 15, 1942
Flowing, skunk-hair (Amendment-3) H-B-256 December 15, 1941	Hams: sweet-pickle-cured, smoked (Amendment-4) PP-H-71 December 15, 1941
Glue, round (Amendment-1) H-B-301 December 15, 1941	Handles, Hickory: striking-tool (Superseding NN-H-91 and NN-H-96) NN-H-93 January 15, 1942
Mottling (Amendment-1) H-B-391 January 2, 1942	Hose: water, wrapped (Amendment-2) ZZ-H-611 December 15, 1941
Paint: metal-bound, flat (high grade) (Amendment-2) H-B-421 January 2, 1942	Hot-Plates: electric (Amendment-1) W-H-636 January 15, 1942
Roof: knotted-style, three knots (Amendment-2) H-B-471 December 15, 1941	Indian-Red: dry, paste-in-japan, paste-in-oil (New) TT-I-511 January 2, 1942
Shaving (Superseding H-B-571) H-B-571a January 2, 1942	Ink: writing (Amendment-1) TT-I-563a January 2, 1942
Bunting: cotton, mercerized (Amendment-4) CCC-B-791a January 15, 1942	Insulation, Vermiculite: block and pipe-covering (New) HH-I-578 December 15, 1941
Carrots: canned (Superseding JJJ-C-76) JJJ-C-76a January 15, 1942	Lamps: electric, incandescent, large, tungsten-filament (Amendment-1) W-L-101d January 1, 1942
Catsup: tomato (Superseding JJJ-C-91) JJJ-C-91a January 15, 1942	Leather: artificial (upholstery) (Amendment-1) KK-L-136a January 15, 1942
Cheese: American (Cheddar or American-Cheddar) and Process American (Amendment-3) C-C-271a December 15, 1941	Leather: lace (Amendment-2) KK-L-201 January 1, 1942
Chrome-Yellow and Chrome-Orange; dry, paste-in-japan, and paste-in-oil (Superseding TT-C-291) TT-C-291a January 15, 1942	Macaroni, Spaghetti and Vermicelli (Superseding N-M-51) N-M-51a January 2, 1942
Copper-Silicon-Alloy; bars, plates, rods, shapes, sheets, and strips (Superseding QQ-C-591) QQ-C-591a January 15, 1942	Machines: slicing, meat (Amendment-1) OO-M-81 January 2, 1942
Corn, Sweet: canned (Superseding N-C-501) N-C-501a January 15, 1942	Muslin: bleached (Amendment-1) CCC-M-911 January 15, 1942
Crushed-Stone, Crushed-Gravel, and Crushed-Slag; (for) binder-course, sheet-asphalt-pavement (Amendment-1) SS-C-726a January 15, 1942	Needles, Hypodermic; for Luer Syringes (Amendment-1) GG-N-196 January 1, 1942
	Nickel: (for) remelting (Amendment-2) QQ-N-301 January 15, 1942

- Oil; flatting (New) TT-O-356 January 2, 1942
- Paint; cement-water, powder, white and tints (for interior and exterior use) (New) TT-P-21 January 15, 1942
- Paper; kraft, wrapping, waterproofed (Amendment-3) UU-P-271 December 15, 1941
- Paper; ledger (Amendment-4) UU-P-288 December 15, 1941
- Peaches; canned (Superseding Z-P-191) Z-P-191a January 1, 1942
- Pears; canned (Superseding Z-P-201) Z-P-201a January 15, 1942
- Peas; canned (Superseding JJJ-P-151) JJJ-P-151a January 15, 1942
- Percule; (Amendment-2) CCC-P-191 January 15, 1942
- Perforators; paper, desk (Amendment-1) GG-P-191a December 15, 1941
- Powder-Blowers; hand (New) GG-P-606 December 15, 1941
- Prunes; evaporated (or dried) (Superseding Z-P-681b) Z-P-681c January 15, 1942
- Putty and Elastic-Compound; (for) metal-sash-glazing (Superseding TT-P-781) TT-P-781a January 2, 1942
- Rakes; hand (New) GGG-R-96 January 2, 1942
- Refrigerators; electric, portable (Superseding AA-R-211) AA-R-211a January 1, 1942
- Ribbons; typewriter (Amendment 3) DDD-R-311a December 15, 1941
- Sheeting; cotton, unbleached, narrow (applicable to Navy Dept. purchases only) (Amendment-3) CCC-S-281 January 2, 1942
- Sponges; natural (Superseding C-S-631a) C-S-631b January 15, 1942
- Spoons, Mustard; wood (New) LLL-S-617 December 15, 1941
- Steel; carbon and alloy, bars (New) QQ-S-671 January 15, 1942
- Steel; carbon (low-carbon), sheets and strips (Superseding part of QQ-I-696) QQ-S-636 January 15, 1942
- Tomatoes; canned (Superseding JJJ-T-571) JJJ-T-571a January 15, 1942
- Tomato-Juice; canned (New) JJJ-T-576 January 15, 1942
- Tubes; inner, puncture-sealing (Amendment-1) ZZ-T-766 January 15, 1942
- Tubing, Aluminum-Alloy (Al-52), (Aluminum-Magnesium-Chromium); round seamless (New) WW-T-787 January 15, 1942
- Turkeys; dressed (Amendment-3) PP-T-791a December 15, 1941
- Turpentine; gum spirits and wood (steam-distilled and sulfate), (for) paint (Superseding LLL-T-791a) LLL-T-791b January 15, 1942
- Turpentine; wood (destructively-distilled) (for) paint (Superseding LLL-T-792) LLL-T-792a January 15, 1942
- Wire, Steel (Carbon); bare and zinc-coated (New) QQ-W-461 January 2, 1942
- Wood-Preservative; creosote-coal-tar solution (Superseding TT-W-566) TT-W-566a December 1, 1941

Emergency Alternate Federal Specifications

- Aluminum-Alloy (Al-61), (Aluminum-Magnesium-Silicon); plates, sheets, and strips E-QQ-A-327
- Bronze, Aluminum; castings (Superseding E-QQ-B-671, dated Sept. 12, 1941) E-QQ-B-671a
- Conduit; steel, flexible E-WW-C-566
- Copper-Silicon-Alloy; bars, plates, rods, shapes, sheets, and strips E-QQ-C-591a; castings E-QQ-C-593
- Fencing; wire (barbed, netting and woven), black and galvanized E-RR-F-221
- Hardware, Builders'; locks and lock-trim (Superseding E-FF-H-106, dated August 16, 1941) E-FF-H-106; shelf and miscellaneous E-FF-H-111; hinges (non-template) E-FF-H-116b; door-closers E-FF-H-121a
- Pencils; lead E-SS-P-166
- Pipe-Fittings; brass or bronze (threaded or brazed), 125-pound E-WW-P-448a; brass or bronze (threaded), 250-pound E-WW-P-461; cast-iron, drainage E-WW-P-491; cast-iron (threaded) E-WW-P-501a; malleable-iron (threaded), 150-pound E-WW-P-521a
- Plumbing Fixtures; (for) land use E-WW-P-541a
- Rope; manila E-T-R-601a
- Tableware; corrosion-resisting-steel (Superseding E-RR-T-41a, dated July 7, 1941) E-RR-T-41a
- Tableware; silverplated (Superseding E-RR-T-51a, dated June 20, 1941) E-RR-T-51a
- Tubing, Aluminum-Alloy (Al-52), (Aluminum-Magnesium-Chromium); round, seamless E-WW-T-787
- Tubing, Aluminum-Alloy (Al-53), (Aluminum-Magnesium-Silicon-Chromium); round, seamless E-WW-T-790
- Unions; brass or bronze, 250-pound E-WW-U-516; malleable-iron or steel, 250-pound E-WW-U-531; malleable-iron or steel, 300-pound E-WW-U-536
- Wire, Steel (Carbon); bare and zinc-coated E-QQ-W-461

U. S. Marketing Service (U. S. Department of Agriculture, Washington, D. C.)

- Handbook of Official Grain Standards of U. S. 1935-1941 (Copies available from Supt. of Documents, Washington, D. C. 15c)
- U. S. Standards for Grades of Canned Beets October 1, 1941
- U. S. Standards for Grades of Canned Grapefruit Juice December 15, 1941

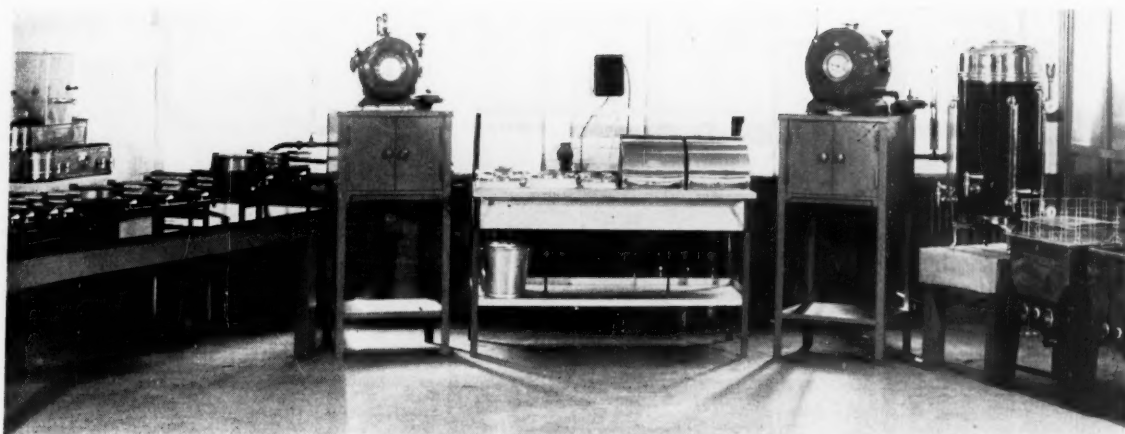
West Is Deputy Director Of OPA Consumer Division

The appointment of Dan A. West as Deputy Director of the Consumer Division of OPA, following the resignation of Miss Harriet Elliott as Director of the Division, was announced December 16 by Leon Henderson, OPA Administrator.

Mr. West will carry on the program of this Division under the direction of Mr. Henderson.

Prior to joining the Consumer Division Mr. West was in the wholesale and retail food business in the states of Washington and Oregon, and was president of the West Dependable Stores of Washington operating 20 units in that state.

Mr. Henderson also announces the appointment of Miss Elliot and Dr. Mabelle Blake as members of the Director's Advisory Council in the Consumer Division.



Gas counter appliances used for research as basis for standard requirements

New Gas Counter Appliance Standard Provides for Safety and Efficiency

DURING the past 16 years safe, durable, and efficient gas-burning equipment for domestic, commercial, and industrial use has been made available through the American Gas Association Testing Laboratories and the standards on which the AGA tests are based. Today 30 sets of American Standards covering 47 different types of gas-burning devices are used in this program. These have been constantly kept abreast with new improvements and developments and expanded to cover an ever-widening field.

The latest of these standards is American Standard Approval Requirements for Gas Counter Appliances (Z21.31-1941) which was adopted by the American Standards Association on October 20, 1941. Revised editions of American Standard Approval Requirements for Gas Water Heaters (Z21.10-1941) and American Standard Listing Requirements for Attachable Gas Water Heating Units (Z21.26-1941) were likewise adopted on this date. All became effective January 1, 1942.

This progress in development of gas equipment standards has anticipated popular demand. Although the Laboratories have been in existence a comparatively short time, their testing and certification program has had far-reaching benefits. Consumers have been provided with more

New Standard will give restaurants and hotels assurance of efficient and safe operation of gas coffee brewers and urns, dish warmers, waffle irons, hot-water sterilizers, and hot plates and griddles

ASA also approves eighth edition of gas water heater standard; third edition of standard for gas water heating units

by R. M. Conner

*Director, American Gas Association
Testing Laboratories*

durable and more efficient gas-burning equipment for practically every heating use. Since tested and approved appliances have offered less service difficulties in the field, dealers are requiring more and more that all gas equipment offered for sale bear the Laboratories' Approval Seal as

their assurance to consumers of satisfactory service. Moreover, through the constant revision and strengthening of existing requirements, the high standard of construction, performance, and efficiency, with which this symbol has become identified, has reached new high levels. Today more than 95 per cent of all domestic gas appliances manufactured and offered for sale in the United States and Canada are tested and approved models which display the AGA Approval Seal as a guide for consumer satisfaction.

American Standards Needed

As new types of appliances are made available, American standards are required to cover their construction and performance. For example, the highly satisfactory service experienced with Laboratories-certified hotel and restaurant ranges brought demands for certification of other types of commercial gas-burning equipment, such as deep fat fryers, portable bake ovens, and counter appliances. Standards covering the first two types of appliances have already been prepared, and became effective January 1, 1941. They are now supplemented by the newly approved standards for gas counter appliances, which cover coffee brewers, coffee urns, food and dish warmers, waffle irons, hot-water immersion sterilizers, and commercial hot plates and griddles. In addition, investigations are being carried forward on other types of commercial appliances to extend the scope of these standards.

Most Extensive Requirements

The new gas counter appliance standards constitute the most extensive set of approval requirements yet prepared. The general provisions are of particular interest to consumers as well as to manufacturers. All are in keeping with the latest concepts of safety and convenience. References are included to existing American Standards for accessories used with the appliances, and supplementary requirements cover those devices which apply individually to gas counter appliances. Thermostats and automatic pilots, for example, must comply with construction requirements of standards covering these devices. To facilitate servicing of such equipment, thermostats, automatic pilots, and electrical equipment, as well as other controls, must be readily accessible for adjustment when the appliance is installed. The importance of this requirement may be readily appreciated when it is realized that gas counter equipment is in practically continuous use in many commercial establishments and must be serviced quickly should any adjustments be needed. General assembly of such units must be of a neat and workmanlike character with all parts tightly attached to give rigidity.

Due to differences in operational characteristics of gas counter appliances for various purposes, performance tests are segregated into separate sections for each type. Primarily concerned with safety, these requirements are designed to simulate the most severe operating conditions. Thermostatically controlled counter appliances are required to be equipped with automatic pilots which will shut off the gas supply if means for ignition of the main burners become inoperative. These automatic pilots must operate positively and within specified time limits to turn on gas to the main burners as well as to shut it off in the event the pilot flame is extinguished. In order to insure satisfactory operation for the life of the unit, they must also meet the requirements of a continued operation test, withstanding 100,000 cycles of operation without any mechanical failure, impairment of operation, apparent damage, and without development of leakage.

Thermostats must meet similar rigid tests. These take into consideration the purpose and use of such appliances as coffee brewers and urns. They must be capable of controlling the gas supply to the burners so that the liquids being heated will be kept hot but will not exceed the boiling point. Moreover, they must accurately maintain desired temperatures. Thermostats with dials on which temperatures are indicated must also be accurately calibrated and provide temperatures within close limits of the dial settings.

Full recognition has been given to the manner in which gas counter appliances are used. Since they may often be placed on wooden counters or near walls constructed of combustible materials, it is necessary to provide against excessive wall and floor temperatures. To simulate these conditions, units are installed on a finished hardwood floor with their side and back spaced six inches from a right-angle wall formed by wooden boards painted dull black and operated at an overrated gas input for one hour. At the end of this time, temperatures on the wall and floor must not exceed a definite increase above room temperature.

Meet Thermal Efficiency Tests

To insure efficient and economical service, all gas counter appliances must meet thermal efficiency tests which have been established after detailed research covering all contemporary models of available equipment. Similarly, such appliances as coffee urns must be capable of maintaining stored hot water with a gas consumption not in excess of specified maintenance gas rates. Numerous other details are covered to insure a high degree of satisfactory service.

As contrasted to these new requirements for gas counter appliances, those for gas water heaters

are now in their eighth edition and those for attachable water-heating units in their third. Consistent with the gas industry's testing and approval program which strives to provide better appliances for the public's use, these standards have been brought up to date in response to new improvements in gas water-heating equipment. In the last 15 years, during which time water-heater standards have been applied, the general efficiency of such equipment has increased approximately 25 per cent.

Automatic Pilots Covered

Recent revisions to these standards consist principally of more complete specifications for automatic pilots and the addition of a hydrostatic pressure test for storage vessels. In recognition of the rapid progress in construction and performance characteristics of automatic pilots, which are incorporated in water heaters and attachable water-heating units to prevent escape of unburned gas, the specifications were strengthened in line with the revised edition of American Standard requirements for automatic pilots, Z21.20-1941, which became effective early in 1941. An added factor of safety where push button or trigger type valves are employed on automatic pilots to permit opening of the gas supply to the main burner for ignition, such valves are required to be constructed without latching in the open position. Automatic pilots must also operate satisfactorily without impairment, apparent damage, and without leakage after being operated for 720 hours in a test chamber maintained at a temperature simulating the most severe operating conditions of such units. They must also comply with a continued operation test similar to that described for automatic pilots for gas counter appliances.

Hydrostatic Pressure Test Added

In order to anticipate the demands of a number of municipalities now considering adoption of ordinances covering strength of storage vessels, a hydrostatic pressure test was added for storage vessels of assembled units. It was believed that this would provide a uniform procedure which would serve as a model for state and municipal agencies. Under the provisions of this test, storage vessels must withstand a hydrostatic pressure of 300 lbs. or their rated hydrostatic test pressure if greater than this amount, without developing leakage or permanent deformation. With the storage vessel subjected to such hydrostatic pressure for one-half hour, the circumference measurement may not exceed the corresponding measurement taken prior to the test pressure by more than 0.2 per cent. Top and bottom head

deflections may, likewise, not exceed 0.5 per cent of the tank diameter. At no time during application of the hydrostatic pressure may there be any leakage of water from the storage vessel.

It is obvious that these revised requirements for water heaters and attachable water-heating units, as well as the new standards for gas counter appliances, provide an increased factor of safety which will benefit consumers. Although these requirements did not become effective until January 1, 1942, manufacturers had already submitted models for test in advance of this date. The latest issue of the Laboratories' Directory of Approved Gas Appliances and Listed Accessories, which contains a complete list of all tested and approved gas appliances and their accessories, presents for the first time a number of gas counter appliances which were not included in earlier editions. There is no doubt that this list will be expanded as additional manufacturers make the necessary changes in their equipment to comply with these new American Standards.

A representative committee organized under the rules of the American Standards Association is responsible for preparing the standards for gas appliances which the American Gas Association Laboratories use as the basis for their tests. These standards provide the requirements which gas appliances must meet before they are approved by the AGA and granted permission to display the AGA Seal of Approval.

The most recent standard in this series to be completed by the committee and approved by the American Standards Association is the American Standard Approval Requirements for Gas Counter Appliances (Z21.31-1941).

In line with its policy of keeping all standards up-to-date with new developments, two other standards have been revised. The eighth edition of the American Standard Approval Requirements for Gas Water Heaters (Z21.10-1941) and the third edition of the American Standard Listing Requirements for Attachable Gas Water Heating Units (Z21.26-1941) have been approved.

All three of these standards may be obtained from the American Standards Association at \$1.00 per copy.

ASA Library Receives New Foreign Standards

The following is a list of new and revised standards which have been received recently by the American Standards Association, and which are available to members for loan from the ASA Library.

Argentina

Chapas de acero, para construccion de calderas de vapor IRAM 504-P
 Analisis mecanico de los agregados IRAM 1505-P
 Llaves de construccion cerrada para instalaciones en inmuebles IRAM 2007-P
 Colores convencionales para canerias IRAM 2507-P
 Dibujo tecnico: disposicion de vistas IRAM 4501-P

Canada

Vitrified Clay Sewer Pipe CESA Standard Specification No. A60-1941

Denmark

Gears
 Series of Modules for Gear Wheels and Worm Wheels DS 312
 Worm Gears—Diameters and Pitches DS 313
 Gear Wheels, Toothform—Evolventgearing DS 314
 Goggles
 With nickel frame and with hinges DS 303
 With lens containers and shields of aluminum DS 304
 Gum-goggles DS 305
 With shields and hinged lens container DS 306
 Of wire netting DS 307
 Light goggles DS 308
 Filter glasses (for protection against radian transmission) DS 309
 Glasses for goggles: dimensions of DS 310; technical conditions of delivery DS 311
 Hospital Equipment
 Spoons 2nd ed DS 67; Forks 3rd ed DS 68;
 Knives with long handle DS 69

Screw Thread, round, 8-200 mm DS 199

Technical Drawings: symbols for electrical heavy current plants DS 145

Welding

Designations and definitions DS 315
 Fusion welding of steel; prescriptions for carrying out and control DS 316
 Electrodes for arc welding of steel; technical conditions of delivery DS 317
 Welding wire for gas welding of steel; technical conditions of delivery DS 318

Holland

Letters, bills and receipts; Models for printing (N1026)
 Plain conduit for electrical installation (N1251) (Supersedes N300)
 Stop and tap cock for water conduits; list of details and general prescriptions (N1255) (Supersedes N578)
 Stop cock for water conduits; body plug, packing ring (N1258) (Supersedes N579)
 Tap cock for water conduits; body (N1260) (Supersedes N580)
 Stop and tap cock for water conduits; Stuffing box gland, coupling nut and box connection (N1263) (Supersedes N581); Stem, valve, disk (N1264) (Supersedes N582); T-handle, key four-arm handle, nut and washer (N1265) (Supersedes N582)
 Paper-insulated heavy-current lead sheathed cables with copper conductors; Current carrying capacity of cables in distribution networks of public supply undertakings (N1279) (Supersedes N225)
 Metric fine thread; measure from 1 up to and including 100mm. N1305) (Supersedes N179)
 The standards received by the ASA from foreign countries are available only in the language of the country in which they were published.

ASA Standards Activities

Approved Standards Available Since Publication of Our December Issue

Gage Blanks (CS8-41) (Revision of B-47-1933) American Standard B47.1-1941 15¢
 Safety Rules for the Installation and Maintenance of Electrical Supply and Communication Lines—Part 2 of the National Electrical Safety Code (Revision of C2.2, part 2) American Standard C2.2-1941 65¢
 Free-Cutting Brass Rod for Use in Screw Machines (ASTM B16-29) (Revision of H8-1934) American Standard H8-1941 25¢
 Copper Water Tube (ASTM B88-39) (Revision of H23.1-1939) American Standard H23.1-1941 25¢
 Alkalinity or Acidity of Pigments, Methods of Test (ASTM D278-31) American Standard K51-1941 25¢
 Bleeding of Pigments, Methods of Test (ASTM D279-31) American Standard K52-1941 25¢

Hygroscopic Moisture (and Other Matter Volatile Under the Test Conditions) in Pigments, Methods of Test (ASTM D280-33) American Standard K53-1941 25¢
 Oil Absorption of Pigments, Methods of Test (ASTM D281-31) American Standard K54-1941 25¢
 Acetone Extract in Dry Lampblack and Dry Bone Black, Methods of Test (ASTM D305-31) American Standard K55-1941 25¢
 Tinting Strength of White Pigments, Methods of Test (ASTM D332-36) American Standard K56-1941 25¢
 Mass Color and Tinting Strength of Color Pigments, Methods of Test (ASTM D387-36) American Standard K57-1941 25¢
 Yellow and Orange Pigments Containing Chromium Compounds, Blue Pigments, and Chrome Green, Methods of Chemical Analysis (ASTM D126-36) American Standard K58-1941 25¢

Approved Standards Available—(Continued)

- Dry Mercuric Oxide, Methods of Chemical Analysis (ASTM D284-33) American Standard K59-1941 25¢
Gas Water Heaters, Approval Requirements (Revision of Z21.10-1938) American Standard Z21.10-1941 \$1.00
Attachable Gas Water Heating Units, Listing Requirements (Revision of Z21.26-1938) American Standard Z21.26-1941 \$1.00
Gas Counter Appliances, Approval Requirements American Standard Z21.31-1941 \$1.00
Dimensions for Film Pack Tabs and Films American Standard Z38.1.1-1941 10¢
Dimensions for Film Pack Cases American Standard Z38.1.2-1941 10¢
Dimensions for 70 mm Perforated (and Unperforated) Film for Other than Motion Picture Purposes American Standard Z38.1.3-1941 10¢

Standards Approved Since Publication of Our December Issue

- Gage Blanks (CS8-41) (Revision of B47-1933) American Standard B47.1-1941
Dry Cells and Batteries, Specifications for (Revision of C18-1937) American Standard C18-1941
Laundry Machinery and Operations, Safety Code for American Standard Z8-1941

Standards Now Being Considered by Standards Council for ASA Approval

- Keyways for Holes in Gears B6.4
Cast-Iron Pipe Flanges and Flanged Fittings, Class 250 (Revision of B16b-1928)
Safety Code for Jacks B30
Protection of Structures Containing Inflammable Liquids and Gases—Part 3 of Code for Protection Against Lightning (From status as American Tentative Standard to American Standard) C5, Part 3
Rubber Gloves for Electrical Workers (ASTM D120-40) C59.12
Tubular Sleeving and Braids, Methods of Testing and Tolerances (ASTM D354-36) (Revision of L13-1941)
Use of Explosives in Anthracite Mines, Proposed American Recommended Practice M27
Drinking Fountains Z4.2
Public Approval and Certification Procedures Z34
Air Gaps in Plumbing Systems A40
Letter Symbols for Hydraulics Z10.2
Letter Symbols for Mechanics of Solid Bodies Z10.3
Cast-Iron Screwed Drainage Fittings B16.12
Type SB (Slow Burning) Wire and Cable (Revision of C8k2-1932) C8.9
Impregnated Paper Insulation of Solid Type for Lead Covered Power Cable (Revision of C8.10-1938) C8.10
Cotton Braid for Insulated Wire and Cable for General Purposes (Revision of C8.12-1935) C8.12
Varnished Cloth Insulation for Lead Covered or Braid Covered Power Cable (Revision of C8.13-1937) C8.13
Metallic Coverings for Insulated Wire and Cable (Revision of C8.15-1938) C8.15
Rotating Electrical Machinery on Railway Locomotives and Rail Cars and Trolley, Gasoline-Electric and Oil-Electric Coaches (Revision of C35-1936) C35
Illuminating Engineering Nomenclature and Photometric Standards (Revision of Z7-1932)

Standards Now Being Considered—(Continued)

- Quicklime for Structural Purposes, Specifications for (ASTM C5-26)
Limestone, Quicklime, and Hydrated Lime, Methods of Chemical Analysis of (ASTM C25-29)
Structural Clay Load-Bearing Wall Tile (ASTM C34-41)
Concrete Building Brick (ASTM C55-37)
Structural Clay Non-Load-Bearing Tile (ASTM C56-41)
Structural Clay Floor Tile (ASTM C57-39)
Sand-Lime Building Brick (ASTM C73-39)
Hollow Load-Bearing Concrete Masonry Units (ASTM C90-39)
Hollow Non-Load-Bearing Concrete Masonry Units (ASTM C129-39)
Concrete Masonry Units for Construction of Catch Basins and Manholes (ASTM C139-39)
Solid Load-Bearing Concrete Masonry Units (ASTM C145-40)
Brick (Modulus of Rupture, Compressive Strength, Absorption, Freezing, and Thawing), Methods of Testing (ASTM C67-41)
Structural Clay Tile, Methods of Testing (ASTM C112-36)
Concrete Masonry Units (ASTM C140-39)
Rubber Products, Methods of Sample Preparation for Physical Testing of (ASTM D15-41)
Vulcanized Rubber: Methods of Tension Testing of (ASTM D412-41); Methods of Test for Adhesion of (Friction Test) (ASTM D413-39); Methods of Test for Accelerated Aging of, by Oxygen-Pressure Method (ASTM D572-41); Methods of Test for Accelerated Aging of, by Oven Method (ASTM D573-41)
Adjustable Face Traffic Control Signal Head Standards

Withdrawal of Approval Being Considered

- Weatherproof Wire and Cable C8.8 (C8k1-1932)

Defense Emergency Standards

Standard Available Since Publication of Our December Issue

- Allowable Concentration of Cadmium Z37.5-1941 20¢

Standards Under Way

- Automatic Refrigerators B38
Allowable Concentration of Acetone Z37
Allowable Concentration of Azides, Lead and Sodium Z37
Allowable Concentration of Ether Z37
Allowable Concentration of Manganese Z37
Allowable Concentration of Tetryl Z37
Allowable Concentration of TNT Z37
Allowable Concentration of Xylol Z37
Domestic Washing Machines
Definitions of Denim and Broadcloth

Requests for Projects Being Considered

- Electric Flat-irons
Machine Tool Electrical Standards
Definitions of Percal Sheets
Protective Lighting of Industrial Plants

Announcing!

4 New American Standards for Petroleum Products

Plant Spray Oils, Test for Distillation	(Z11.43-1941)	25¢
Vapor Pressure of Petroleum Products (Reid Method), Test for	(Z11.44-1941)	25¢
Method for Calculating Viscosity Index	(Z11.45-1941)	25¢
Method of Conversion of Kinematic Viscosity to Saybolt Universal Viscosity	(Z11.46-1941)	25¢

13 New Standards for Pigments

Basic Sulfate White Lead	(K47-1941)	25¢
Blue Lead: Basic Sulfate	(K48-1941)	25¢
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Alkalinity or Acidity of Pigments	(K51-1941)	25¢
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